

April 3, 1973
Preliminary Copy
University of Idaho
Soil Conservation Service

Pedee
65 Ida 0506

General Site Characteristics

Location -- Benewah County, Idaho, 41 feet west of road, 1040 feet south of northeast corner of section 8, T. 44 N., R. 4 W.; described -- August 27, 1964, by ;
topography -- moderately sloping hills oriented east northeast - west southwest, smooth, 8 percent slope; elevation -- 2700 feet; aspect -- southwest; drainage -- moderately well; permeability -- very slow in B2t; stoniness -- few scattered cobbles; vegetation or use -- Ponderosa pine, few Douglas fir, ocean spray, snowberry, arrow leaf balsam root, red stem ceanathus spirea, strawberry, yarrow; classification -- Ultic Paleudalfs, fine, mixed, mesic.

Pedon Description

01 ½-0 inches. Undecomposed needles and leaves.

A11 0-2.5 inches. Brown (7.5YR 5/3) silt loam, dark brown (10YR 2.8/2.8) moist; weak medium platy and weak to moderate fine and very fine granular structure; weakly coherent, slightly sticky and slightly plastic; noncalcareous; abundant very fine and plentiful medium roots; many very fine interstitial pores; abrupt smooth boundary.

A12 2.5-9 inches. Brown (7.5YR 5.4/3) silt loam, dark brown (7.5YR 3/3) moist; weak to moderate fine subangular blocky structure; slightly hard, slightly sticky, and slightly plastic; noncalcareous; abundant very fine and plentiful medium roots; many very fine closed pores; few subrounded gravels; many fine dark concretions; clear wavy boundary.

A2 9-12 inches. Light brown (7.5YR 6/3) loam, reddish brown (6YR 4/4) moist; very weak medium blocky or massive structure; slightly hard, slightly sticky and slightly plastic; noncalcareous; plentiful very fine and few medium roots; many very fine tubular pores; many fine dark

concretions; few subrounded gravels; abrupt wavy boundary.

B & A 12-17 inches. Pink (7.5YR 7/3) uncrushed, reddish yellow (7.5YR 6/6) crushed, reddish yellow (5YR 6/6) clay films, clay loam, yellowish red (5YR 4.6/6) moist; weak medium subangular blocky structure; hard, slightly sticky and plastic; noncalcareous; few very fine roots; many very fine tubular pores; medium clay films in pores; common fine concretions; few subrounded gravels; much bleaching; abrupt wavy boundary.

B21t 17-34 inches. Reddish yellow (5YR 6/6) uncrushed, reddish yellow (5YR 6/8) crushed, red (2.5YR 4/8) clay films, loam, red (2.5YR 3.8/8) moist; strong coarse prismatic structure; very hard, slightly sticky and plastic; noncalcareous; few very fine roots; few very fine tubular pores; thick continuous clay films; dark organic stain on prism faces; prisms are coated with bleaching on upper part; clear wavy boundary.

B22t 34-55 inches. Reddish yellow (5YR 6/6) uncrushed, reddish yellow (5YR 6/8) crushed, red (2.5YR 4/8) clay films, loam, red (2.5YR 4/8) moist; very weak coarse prismatic or massive structure; very hard, slightly sticky and plastic; noncalcareous; prism faces matted with fine roots; thick continuous clay films; dark organic stains on prism faces; fine to coarse gravels; clear wavy boundary.

B3t 55-67+ inches. Silt loam, red (2.5YR 4/7) moist; very weak very coarse prismatic or massive structure; very hard, sticky and plastic; noncalcareous; prism faces matted with fine roots; dark organic stain on faces; thick continuous clay films.

Pit was dug to 76 inches. Gravels extend to 52 inches, then very few gravels to 72 inches. Another gravel lens is evident in bottom of pit. Material below is still red and clayey.

Chemical characterization and physical analysis of profile

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No.	Horizon	Depth in.	pH Paste	pH 1:5	ECx10 ³	Saturation extract me/1000 gms soil							
						Ca	Mg	Na	K	CO ₃	HCO ₃	Cl	SO ₄
1	A11	0-2.5	6.15		.30								
2	A12	2.5-9	5.65		.28								
3	A2	9-12	5.45		.20								
4	B21t	12-17	4.65		.10								
5	B22t	17-34	4.45		.05								
6	B3t	34-55 ⁺	5.05		.18								
7		55-67 ⁺	5.30		.15								

Exchangeable ions me/100 gms					C.E.C. meq/100	Base		CaCO ₃	E.S.P.	O.M.	N	C:N	Soil:Rx ratio
Ca	Mg	Na	K	H		Sat. %	Gyp.			%	%		
9.1	1.6	.1	.5	8.8	18.0	56.2				5.49	.174	18.3	
2.7	.7	.1	.1	3.9	7.1	48.0				1.29	.045	16.7	.64
3.1	.7	.1	.1	2.8	6.2	58.5				.58	.026	15.8	.82
6.8	2.1	.1	.2	6.8	15.0	57.2				.50	.027	11.2	tr
7.1	2.6	.2	.1	5.6	13.7	64.0				.24	.013	10.8	
2.5	.9	.1	.1	1.0	4.6	77.9				.07	.007	7.1	.73
4.4	1.5	.1	.1	1.4	7.2	81.2				.12	.012	5.8	

$$\%C = \frac{\% OM}{1.72}$$

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Date: November 6, 1969

No.	Particle size distribution (mm) (percent)								Gravel &	Texture Class
	VCS	CS	MS	FS	VFS	TS	TSi	TC	Stone, etc.	
	2-1.0	1-0.5	0.5-0.25	0.25-0.05	0.1-0.05		0.05-0.002	< 0.002	> 2mm	
0-2.5	1.43	2.70	3.35	10.84	18.16	36.49	53.09	10.42	none	Silt loam
2.5- 9	.48	.94	1.64	12.28	21.96	37.30	51.52	11.17	none	Silt loam
9-12	1.07	2.04	2.80	11.02	22.03	39.96	49.76	11.27	none	Loam
12-17	.10	.21	.89	7.69	17.83	26.71	42.66	30.63	none	Clay loam
17-34	.05	.03	.34	5.85	20.96	27.23	47.71	25.06	none	Loam
34-55	.45	1.22	3.62	16.73	22.94	45.00	41.26	13.74	none	Loam
55-67+	.04	.26	.60	8.20	13.53	22.64	61.28	16.08	none	Silt loam